

NightConqueror for TUAV

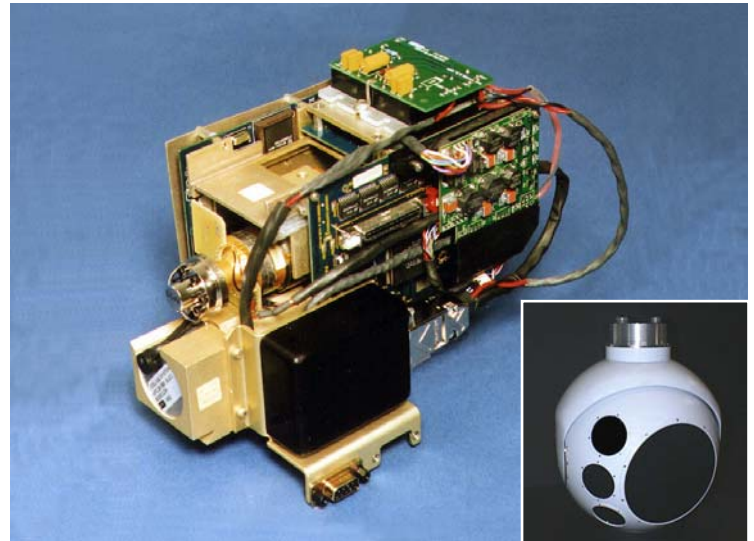
Date Revised: 05 NOV 03

VENDOR DESCRIPTION

The ultimate generation of performance in infrared thermal imaging.

The new NightConqueror family of advanced thermal imaging modules enhances situational awareness...provides a common clear view of the battlespace...extends the reach of the warfighter.

The Thermal Imaging Module is included in the Model 12DS gimbal sensor assembly mounted aboard the Tactical Unmanned Aerial Vehicle. Provided to our customer as a ready-to-use component, the 12DS also includes a color TV camera, and both sensors include telescope lenses for long-range surveillance. The small size, light weight, and high sensitivity make an ideal match with the TUAV.



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Business Category: Large Business

PIR

Power Source		Environmental		
Sensors	25 W operation, 15VDC & 28VDC required	High Temp	+85°C (Storage)	+45°C (Operating)
		Low Temp	-55°C (Storage)	-55°C (Operating)
		Altitude	10,000 ft (Operating)	50,000 ft (Transit)
Supplemental Battery Box	Determined by UAV system	Humidity	95% relative humidity per MIL-STD-810E	
		Immersion	N/A; passes Drip Proof and Rain 20" hour (Typ. enclosed unit)	
		Sand/Dust	Determined by enclosure selected	
Monitor	Determined by UAV system's operation base design; a display is typically not located with sensor on UAV.	Salt	48 hours exposure per MIL-STD-810E	
		Fungus	Determined by enclosure selected	
		Shock/Vibe	Random vibration, shock, cargo & drop test/MIL-STD-810E	
		EMI/EMC	MIL-STD-461, Level CE101, CE102, RE101, RE102	

Sensor	Description	Detection	Size/Weight	Features
Passive Infrared	Long-distance thermal imaging using temperature differential between targets and background. 24-hour operation.	Detection (Wide FOV) NATO Target 3.3 km Man 1.2 km	Size: 7" x 8" x 4" Weight: 6.5 Lbs. (Dimensions and weight include mounting adaptor plate. Lens is not included.)	<ul style="list-style-type: none"> ■ 640 x 512 FPA ■ White & black hot video ■ AGLC (Auto Gain & Level Control) ■ Three FOV lens ■ Electronic zoom ■ RS-422/232 serial control ■ Winter to tropic scenes ■ 14-bit serial image data ■ MRTD <10 mK ■ F/5 for minimum size, weight & system cost ■ Low lifetime sensor costs
	InSb 640x512 FPA for full video display resolution (RS-170, NTSC or PAL)	Recognition (Narrow FOV) NATO Target 20.1 km Man 8.6 km		
	MWIR (3 to 5 um) thermal band with CO2 notch filter for ultimate long-distance and high humidity performances	Identification (Narrow FOV) NATO Target 10.5 km Man 4.3 km		
		Target Size & Delta Temp: NATO Target (2.3 x 2.3m) = 1.25°C 50% Probability Man (0.75 x 0.75m) = 2°C		